IN THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 10, with the following rewritten paragraph:

--With high integration of an LSI (large scale integrated) circuit, internal interconnection is becoming minute and multi-layered. Along with such a tendency, development of a flattening technique on formation of interconnection, a processing technique for minute interconnection, and maintenance of reliability become important problems. As one of the solutions to these problems, embedded interconnection technique has been investigated. In particular, a copper embedded interconnection technique aiming at high speed operation and low consumption power is receiving attention.

Please replace the paragraph beginning on page 2, line 20, with the following rewritten paragraph:

--As shown in Fig. 1C, because the coverage of the barrier metal layer 113 and the glue layer 114 on the concave part 112 does not become 100%, the resistance of the barrier metal layer 113 and the glue layer 114 is increased at these parts. Under the circumstances, when electroplating is conducted by immersing in a copper electroplating solution 121, current concentration occurs at the opening part (shown by arrows in the figure). The rate of the film formation is thus increased at the part at which current concentration occurs. A bubble 115 is formed inside the concave part 112. As a result, a copper film 116 is formed with a void 115 forming inside the concave part 112, as shown in Fig. 1D. In Fig. 1C, the figure is drawn with the upper surface of the interlayer insulating film 111 being downward on the contrary to the other figures.--

Please replace the paragraph beginning on page 3, line 9, with the following rewritten paragraph:

A3

--Fig. 2 is a schematic cross sectional view showing the voids actually formed on producing a copper film by electroplating. As shown in Fig. 2, it has been found that the copper film 116 is grown in the condition in that the voids 115 are formed over the interior to the upper part of the concave parts (grooves) 112 formed in the interlayer insulating film 111.--

Please replace the paragraph beginning on page 3, line 16, with the following rewritten paragraph:

A4

--In the electroplating apparatus 120 for a wafer currently available as shown in Fig. 3, in order to prevent the back surface of the wafer 110 from contacting with a plating solution (containing copper ions) 121, a face-down structure is employed in that the front surface of the wafer 110 faces the plating solution 121. The plating solution is stored in a plating bath 122, and an anode 123 is provided in the plating solution 121.--

Please replace the paragraph beginning on page 3, line 23, with the following rewritten paragraph:

A5

--In the method described above, there is a case where the plating solution 121 cannot be spread into minute parts formed on the surface of the wafer 110 as shown in Fig. 4A. That is, there is a case where a bubble 117 remains inside the concave part (for example, a groove) 112. When electroplating is conducted under such conditions, the copper film 116 is grown in the condition in that the bubble 117 remains and a void 115 is formed inside the concave part 112, as shown in Fig. 4B.--

Please replace the paragraph beginning on page 4, line 7, with the following rewritten paragraph:

A6

--It has been reported by Y. Harada, et al. in *Preprints of 58th Shuki Gakujutu Koenkai of the Japan Society of Applied Physics*, 3p-E-4, p. 776 (1997) that the void thus formed is by subjecting to a heat treatment at about 400(C. However, the void generated by forming a film by electroplating contains air as different from a void generated by sputtering under high vacuum. Since air contains about 20% of oxygen, there is a possibility that the surroundings of the void are oxidized, and increase in resistance and deterioration of reliability may occur.--

Pleas replace the paragraph beginning on page 5, line 16, with the following rewritten paragraph:

A7

--Because the article to be plated is immersed in the plating solution through the non-oxidative atmosphere, even when a bubble invades into the minute part, such as a groove and a connecting hole, of the article to be plated on immersing the article into a plating solution, so as to form a plated layer with the bubble becoming a void, the void does not contain oxygen. Therefore, the plated layer is not oxidized when the gas contained in the void is absorbed by the plated layer by subjecting the plated layer to the heat treatment to cause the void to disappear. Thus, increase in resistance and deterioration of reliability in the plated layer do not occur.--

Please replace the paragraph beginning on page 7, line 5, with the following rewritten paragraph:

A8

--As shown in Fig. 5, an apparatus for electroplating comprises a plating chamber 11 having an interior maintained with a non-oxidative atmosphere, a plating bath 21 provided inside the

plating chamber 11, and means for holding a wafer 41 of a face down type.--

A8

Please replace the paragraph beginning on page 7, line 16, with the following rewritten paragraph:

--The means for holding a wafer 51 is tranportably provided by a driving unit not shown in the figure above the plating solution 31, and is freely movable in the direction A shown by the arrow in the figure. The means for holding a wafer 51 is equipped with a cathode 42, and the cathode 42 is connected to the surface to be plated (the lower surface in the figure) of the wafer 51. The anode 22 and cathode 42 are connected to a power source not shown in the figure.--

A9

Please replace the paragraph beginning on page 8, line 12, with the following rewritten paragraph:

--In the apparatus for electroplating 1 described above, because the plating bath 21 is provided in the plating chamber 11 containing the non-oxidative atmosphere, even when a bubble invades into the minute part, such as a concave part (not shown in the figure), e.g., a groove and a connecting hole, of the wafer 51 to be plated on immersing the wafer 51 into the plating solution 31 in the plating bath 21, so as to form a plated layer with the bubble becoming a void, the void contains a non-oxidative gas but does not contain oxygen. Therefore, the plated layer is not oxidized when the gas contained in the void is absorbed by the plated layer by subjecting the plated layer to the heat treatment to eliminate the void. Thus, increase in resistance and deterioration of reliability in the plated layer do not occur.--

A10

Please replace the paragraph beginning on page 13, line 5, with the following rewritten paragraph:

A11

--Accordingly, it becomes possible that the void can be eliminate by the subsequent heat treatment of the copper film 57 without oxidation of the copper film 57, so as to bury the copper film 57 in the groove 53 as shown in Fig. 8A.

--Please replace the paragraph beginning on page 15, line 6, with the following rewritten paragraph:

A12

--According to the method for electroplating of the invention, because the article to be plated is immersed in the plating bath through a non-oxidative atmosphere, even when a bubble invades into the minute part, such as a concave part, e.g., a groove and a connecting hole, of the article to be plated on immersing the article into a plating solution in the plating bath, the bubble is composed of a non-oxidative gas. Therefore, when a plated layer with the bubble becoming a void, the void contains the non-oxidative gas. Therefore, the plated layer is not oxidized when the gas contained in the void is absorbed by the plated layer by the heat treatment, and increase in resistance and deterioration of reliability in the plated layer can be prevented.--

Please delete page 19 in its entirety